

BI 1

Numbers tell how many or how much.

Usually we use numbers to give us a sense of something's size.

K-2 examples:

- *There are many ways to count including skip counting.*
- *Our number system of ones, tens, and hundreds helps us know whether we have some, many and very many.*

BI 2

Classifying numbers or numerical relationships provides information about the characteristics of the numbers or the relationship.

Sometimes if you know a little bit about a number or a number relationship, you know more than you realized.

K-2 examples:

- *If I make lots of groups of 2 of something, I will get an even number of things.*
- *If a number has a 5 in the ones column, I will land on it if I count by 5s.*
- *If there are 10 all together, the partner number for 3 will not be a small number like 3 is.*

BI 3

There are many equivalent representations for a number or numerical relationship. Each representation may emphasize something different about that number or relationship.

There is usually more than one way to show a number or a number relationship and each of those ways might make a different thing about the number or relationship more obvious.

K-2 examples:

- *I can see 25 in 3 different ways:*
 - *25 is 2 groups of 10 and 5 left over → this shows the tens*
 - *25 is 5 groups of 5 → this shows the fives*
 - *25 is 12 groups of 2 and one left over – this shows it is an odd number.*

- *Our number system of ones, tens, and hundreds helps us know whether we have some, many and very many.*

BI 4

Numbers are compared in many ways. Sometimes they are compared to each other. Other times, they are compared to benchmark numbers.

Numbers can be compared in different ways- sometimes to each other and sometimes to benchmark numbers.

K-2 examples:

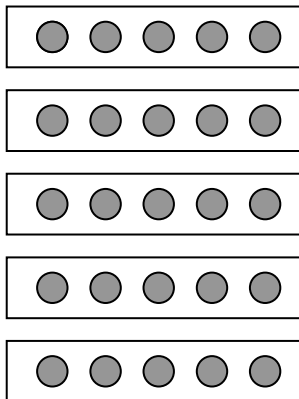
- *7 and 3 are partner numbers for 10.*
- *7 is 2 more than 5 and 3 is 2 less than 5.*
- *Two fourths is half of an orange.*

BI 5

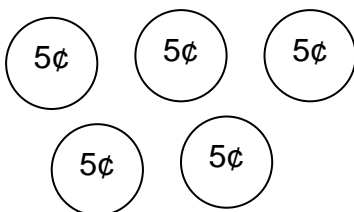
The operations of addition, subtraction, multiplication and division hold the same fundamental meaning no matter the domain to which they are applied.

Each operation (addition, subtraction, multiplication and division) means more or less the same thing no matter what objects are being used.

K-2 examples:



$$5 + 5 + 5 + 5 + 5 = 5, \text{ added five times} = 5 \times 5 = 25$$



$$5¢ + 5¢ + 5¢ + 5¢ + 5¢ = 5 \text{ five-cent coins} = 5 \times 5¢ = 25¢$$